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## THE OCCURRENCE OF *CRASPEDACUSTA* IN A STREAM IN INDIANA

JOHN MARK DEAN

*Department of Biological Sciences, Purdue University, Lafayette, Indiana*

The freshwater medusa of *Craspedacusta sowerbii* is becoming a fairly well-known inhabitant of small lakes and artificial ponds. However, it is only recently that it has been reported in streams and rivers.

*Craspedacusta sowerbii* is a trachyline medusa with a suppressed polypoid generation and a well-developed medusoid generation. The medusae form directly from the polyp, which may be formed from the fertilized eggs of the medusae or by budding.

The history of this form and its distribution in North America are now fairly well-known, due principally to the work of Schmitt (1927, 1939), Dexter, et al. (1949), Pennak (1956), and Lytle (1958, 1960). Reviews of the known records, their location, and field observations may be found in these works.

The medusa is more common in artificial impoundments than in any other type of water. It is becoming common in some lakes. Its appearance in streams or rivers is relatively rare, but the species has been reported in several lotic environments. Among these are the Kentucky River (Garman, 1916, 1922, 1924), the Huron River (Woodhead, 1933, 1943; McClary, 1959), and the James River (Lytle, 1960). The hydroid is uncommon in running water, but its paucity may be due to collecting difficulties. It is interesting to note that river systems with established populations are streams with impoundments, either natural or artificial.

Medusae which I collected were taken in late August, 1960, from Salt Creek, a tributary of the East Fork of the White River near Bedford, Indiana. The stream is a fairly slow one, with a relatively constant current at the sampling station. The collections were made in conjunction with the Water Quality Sampling Program of the Indiana State Board of Health and the Stream Pollution Control Board.

Plankton counts were made on water samples obtained from the stream and expressed as number of organisms per milliliter.

The total phytoplankton concentration was 8,168/ml, with the most numerous

organisms being the diatoms *Cyclotella* and *Melosira*, which were calculated to be 2900 and 3600, respectively. The zooplankton consisted of rotifers with a total concentration of 8.0/ml. This gave a total plankton count that would indicate a plankton bloom with an abundance of organisms upon which the *Craspedacusta* might feed.

Three medusae were collected in a two-liter sample. Two of the specimens measured 3 mm and one measured 5 mm in diameter. The specimens were immature and therefore the sex could not be determined.

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